

PATENT SPECIFICATION

Application Date: Feb. 24, 1930. No. 6026/30.

347,368

Complete Left: Nov. 11, 1930.

Complete Accepted: April 30, 1931



PROVISIONAL SPECIFICATION.

Improvements in or relating to Teats for Feeding Bottles and the Like.

We, LESLIE READER, of 6, Brodrick Grove, Plumstead, London, S.E. 18, a British Subject, JOHN WILLIAM HERVEY PENGELLY, of 13, Lassa Road, Eltham, London, S.E. 9, a British Subject, and HUBERT EDWARD EASTON, of 5, Westmount Road, Eltham, London, S.E. 9, a British Subject, do hereby declare the nature of this invention to be as follows:-

This invention is for improvements in or relating to teats for feeding bottles and the like, and has for one of its objects to provide a construction which will be free from certain disadvantages inherent to existing forms of these teats. Difficulty is often found in ensuring the passage of the liquid through the teat at a suitable rate. Among other considerations this rate is determined by the size of the conduit through the teat and it is a common practice to enlarge this bore by applying a hot needle. This, however, is a very rough and uncertain way of altering the size and does not usually give satisfactory results.

According to the primary feature of the present invention, there is provided a teat for a feeding bottle or the like having means for varying the cross-sectional area of the conduit through the teat. Preferably, the teat is made of resilient material, such as rubber, and has means for applying compression to it in the direction to constrict the conduit. Thus a portion of the teat may be surrounded by a split ring having screw-operated wedging means for contracting it to compress the teat.

The teat may have its nipple formed almost solid except for the comparatively fine central bore and may have an enlargement some distance from its extremity so as to prevent it being drawn too far into

the mouth. Beyond this enlargement the teat may be continued at a reduced diameter and surrounded by the aforesaid split ring which may be made of ebonite or like material and may have just one split, or may have more if desired. The inner surface of the ring fits closely around the teat and the outer surface is tapered to make a wedge combination with a surrounding collar which is oppositely tapered. The outer surface of the collar may be threaded to co-operate with a cap which has a flanged end to reach behind the larger end of the split ring. Thus by screwing the cap on to the collar the wedge combination will cause contraction of the ring and consequently will compress the teat, thereby constricting the conduit through the latter. There may be suitable markings on the collar and cap to indicate the various settings suitable for different constrictions of the bore.

Beyond the portion of the teat which carries the collar and split ring, there may be a bell-shaped enlargement to fit on to the feeding bottle or the like around the mouth thereof, or a plug to fit inside the said mouth.

It will be appreciated that the construction just described will provide a comparatively solid teat for the infant or animal to bite upon, and will enable the rate of flow of the liquid through the conduit to be accurately adjusted.

It is to be understood that the invention is not restricted to the precise constructional details set forth.

Dated this 24th day of February, 1930.

BOULT, WADE & TENNANT,
111 & 112, Hatton Garden, London,
E.C. 1.

Chartered Patent Agents.

COMPLETE SPECIFICATION.

Improvements in or relating to Teats for Feeding Bottles and the Like.

We, LESLIE READER, of 6, Brodrick Grove, Plumstead, London, S.E. 18, JOHN

WILLIAM HERVEY PENGELLY, of 13, Lassa Road, Eltham, London, S.E. 9, and

Price 1/-

HUBERT EDWARD EASTON, of 5, Westmount Road, Eltham, London, S.E. 9, all British Subjects, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention is for improvements in or relating to teats for feeding bottles and the like and has for its object to provide an improved construction for controlling or regulating the flow of liquids through the test.

In carrying out our invention we provide a test for a feeding bottle or the like, made of a resilient material, such as india rubber, having a conduit through it, and a means for applying compression to the conduit. Thus, a portion of the test is surrounded by a means of compressing it to constrict the conduit through the test.

The test will have its nipple formed solid or almost solid except for a comparatively fine central bore, and will have an enlargement some distance from its extremity so as to prevent it being drawn too far into the mouth and will also enable the infant to "mouth" on a proper shape necessary for the correct development of the jaw. Beyond this enlargement the test is continued at a reduced diameter where provision is made for allowing the means for compressing the conduit to be situated at this place.

In order that our invention may be fully understood and ascertained we append drawings in which:—

Fig. 1 shows our invention applied to the neck of the bottle.

Fig. 2 shows a vertical section of a wedge means of constriction with the proper shaped enlargement.

Fig. 3 shows a vertical section with a ring and screw means of constriction.

Fig. 4 shows a vertical section with a ring and tapered neck means of constriction.

Figs. 5 & 7 show a tapered slot means of constriction.

Fig. 6 shows a cushion shaped enlargement.

Fig. 8 shows a flat flange enlargement with a plug as means of making the union with the neck of the bottle.

In Figs. 1 & 2, *a*, indicates the nipple of the test. Longitudinally through the centre of the nipple *a*, is the conduit, *b*, (Fig. 2) while at the base of the nipple is the enlargement, *c*, which is preferably of the shape shown in Figs. 1, 2, 3, 4 & 5.

In Fig. 2 the means for compressing the conduit and so restricting the flow of the liquid is situated around that part of the test marked, *d*, and will consist of screw operated wedges, *f* and *g*,

which will compress the split ring, *e*, which in turn will constrict the conduit through the part *d*. The split ring *e*, may have one or more splits as desired.

In Fig. 3 the means for compressing the conduit through the test is a solid ring or collar, *h*, having a screw, *i*, which is so placed that it can project through the collar, *h*, and press on to a loose pad, *j*, let into a recess in the part, *d*. Thus by turning the screw, *i*, the pad, *j*, compresses the conduit through the test at the part, *d*.

In Fig. 4 the part of the test, *d*, which is to be compressed, is tapered, and surrounded by a solid ring, *l*, having a bore equal to the size of the smaller end of the tapered portion of the test. Thus by drawing the ring, *l*, down the tapered portion, *d*, the conduit is thereby constricted and the rate of flow altered.

Again in order to constrict the bore of the conduit, Fig. 5 shows the part of the test, *d*, surrounded by a ring or plate, *m*, having a varying internal diameter the largest of which will correspond to the diameter of the portion of the test, *d*, which is to be compressed. Thus by moving the ring or plate across the test the bore of the conduit is thereby proportionately constricted.

Fig. 7 shows a sectional plan of the ring, *m*.

Fig. 6 shows the nipple of the test with a cushion type enlargement, *g*, which may be used as an alternative to *c* Fig. 2.

Beyond the portion of the test to be compressed, *d*, Figs. 2 to 8 is a bell shaped union, *n*, Figs. 1 to 5, to fit onto the neck of the feeding bottle or the like. If necessary the union can be made in the form of a cork or plug, *o*, Fig. 8, which can be inserted into the neck of the feeding bottle or the like.

It will be appreciated that by means of our invention a comparatively solid test for the infant to bite on, and a means of accurately adjusting the rate of flow of the liquid through the conduit is provided.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—

1. A test in which the flow of liquid is accurately adjusted by compressing that portion of the test containing the conduit through which the liquid flows, substantially as described and shown.

2. A test in which the flow of liquid is accurately adjusted by means of a split ring constricted by screw operated wedges substantially as described and shown.

3. A test in which the flow of liquid is

accurately adjusted by means of a collar having a screw projecting through it substantially as described and shown.

4. A test in which the rate of flow of the liquid is accurately adjusted by means of a tapered neck surrounded by a sliding ring substantially as described and shown.

5. A test in which the flow of liquid is accurately adjusted by means of a ring of varying internal diameter which slides transversely across that part of the test to be compressed substantially as described and shown.

6. A test having a bell shaped enlarge-

ment and having the means of accurately adjusting the flow of the liquid through the test as in Claims 2, 3, 4 & 5 substantially as described and shown.

7. A test provided with means for accurately adjusting the rate of flow of the liquid through the conduit substantially as described with reference to the accompanying drawings.

Dated the 28th day of February, 1931.

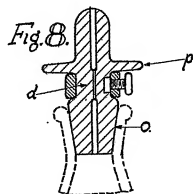
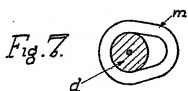
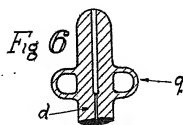
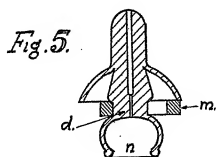
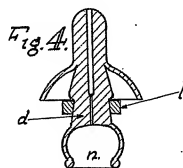
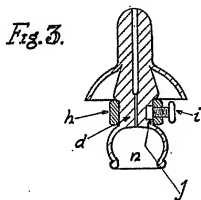
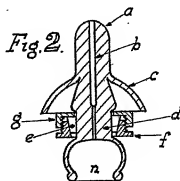
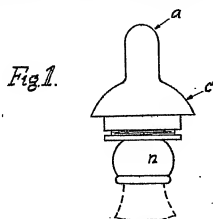
LESLIE READER,

JOHN WILLIAM HENRY

PENGELLY,

HUBERT EDWARD EASTON.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1931.



[This Drawing is a reproduction of the Original on a reduced scale.]